

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A rotary connector comprising:

a first part;

a second part rotationally coupled to said first part to form an interior of the rotary connector;

a first flat cable having a single ribbon conductor which has a relatively large width for providing input and output high current to the rotary connector;

a second flat cable for providing separate current sources to the rotary connector, wherein the second flat cable has multiple conductor wires, wherein said first and second flat cables are wholly housed within said interior of the rotary connector and each of said first and second flat cables extend in a circumferential direction about an axis of rotation of the rotary connector; and

an over current protection device housed within an integral space of said rotary connector and configured to provide over current protection for at least one of the first and second flat cables.

Claim 2 (Previously Presented): The rotary connector of Claim 1, wherein said over current protection device consists of a single fuse configured to provide over current protection for said at least one of the first and second flat cables.

Claim 3 (Canceled).

Claim 4 (Original): The rotary connector of Claim 1, wherein said integral space comprises a recess formed in said interior of the rotary connector.

Claim 5 (Previously Presented): The rotary connector of Claim 4, wherein said recess is separate from an annular space in said interior used to house the first and second flat cables.

Claim 6 (Original): The rotary connector of Claim 4, wherein said over current protection device snaps into said recess.

Claim 7 (Previously Presented): The rotary connector of Claim 1, further comprising a bus bar coupled to said first and second flat cables, said over current protection being integrated with said bus bar.

Claim 8 (Previously Presented): The rotary connector of Claim 7, wherein said over current protection consists of a single fuse configured to provide over current protection for said at least one of the first and second flat cables.

Claim 9 (Previously Presented): The rotary connector of Claim 8, wherein said bus bar comprises:

- a first conductor electrically connected to said electrical cable; and
- a second conductor electrically insulated from said first conductor and configured to be connected to a power input to said rotary connector, wherein said over current protection device electrically connects said first and second conductors.

Claim 10 (Original): The rotary connector of Claim 9, wherein said over current protection device comprises a blade fuse, said rotary connector further comprising a

intermediate terminals connected to said first and second conductors and configured to electrically connect with said blade fuse.

Claim 11 (Withdrawn): The rotary connector of Claim 10, wherein said over current protection device comprises a pico fuse.

Claim 12 (Withdrawn): The rotary connector of Claim 9, wherein said over current protection device comprises a surface mount chip fuse.

Claim 13 (Withdrawn): The rotary connector of Claim 9, further comprising a heat sink feature configured to remove heat from the bus bar.

Claim 14 (Withdrawn): The rotary connector of Claim 13, wherein said heat sink feature comprises .8mm thick copper contacts used for said first and second conductors.

Claim 15 (Withdrawn): The rotary connector of Claim 13, wherein said heat sink feature comprises sink fins.

Claim 16 (Withdrawn): The rotary connector of Claim 13, wherein said heat sink feature comprises a heat pipe.

Claim 17 (Withdrawn): A steering wheel assembly comprising a rotary connector according to any one of Claims 1-16.

Claim 18 (Withdrawn): A rotary connector comprising

a first part;

a second part rotationally coupled to said first part to form an interior of the rotary connector;

an electrical cable housed within said interior of the rotary connector; and

means for protecting said electrical cable from over current, said means being housed within an integral space of said rotary connector.

Claims 19-21 (Canceled).

Claim 22 (Previously Presented): The rotary connector according to claim 1, wherein the at least one of the first and second flat cables provided with over current protection is said first flat cable, which is configured to provide input and output high current to the rotary connector.

Claim 23 (Previously Presented): The rotary connector of claim 1, wherein each of the first and second flat cables comprises an input cable length and an output cable length.

Claim 24 (Previously Presented): The rotary connector of claim 1, wherein at least one of the first and second flat cables comprises a plurality of flat cables.